## BEST AVAILABLE COPY

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



## | FRANK ENDOEDD & FRENK INDIO DENN BEGIN 1500 FIN IN DERN BEINER BRIN OSDIO GERD DERLOCK IN BEN 1976 FIN IN

(43) International Publication Date 20 January 2005 (20.01.2005)

PCT

(10) International Publication Number WO 2005/006347 A1

- (51) International Patent Classification7: G01N 21/65
- G12B 21/02,
- (21) International Application Number:

PCT/IL2004/000613

(22) International Filing Date:

8 July 2004 (08.07.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/485,731

10 July 2003 (10.07.2003)

(71) Applicant (for all designated States except US): YISSUM RESEARCH DEVELOPMENT COMPANY OF THE HEBREW UNIVERSITY OF JERUSALEM [IL/IL]; Hi Tech Park, Edmond Safra Campus, Givat Ram, 91390 Jerusalem (IL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): BANIN, Uri [IL/IL]; 37 Yasmin Street, 90805 Mevasseret Zion (IL). MOKARI, Taleb [IL/IL]; Givat Ram 4/208, P.O.B. 39183, 91391 Jerusalem (IL). EBENSTEIN, Yuval [IL/IL]; 28 Yakinyon Street, 70600 Yavne (IL).

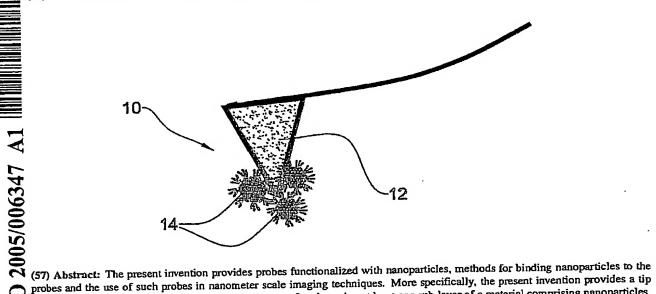
- (74) Agent: REINHOLD COHN AND PARTNERS; P.O.B. 4060, 61040 Tel Aviv (IL).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FL, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SL, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: NANOPARTICLES FUNCTIONALIZED PROBES AND METHODS FOR PREPARING SUCH PROBES



probes and the use of such probes in nanometer scale imaging techniques. More specifically, the present invention provides a tip device having at least a portion thereof with an outer surface bound to at least one sub-layer of a material comprising nanoparticles, the nanoparticles acting as donors, acceptors, modifiers, quenchers and/or enhancers with respect to electromagnetic radiation.